

## EAST Search History

## EAST Search History (Prior Art)

| Ref # | Hits | Search Query   | DBs   | Default Operator | Plurals | Time Stamp          |
|-------|------|--|---|------------------|---------|---------------------|
| L1    | 147  | piano and hammer same (lever or shank) with (fiber\$1 or resin or thermoplastic or plastic or mold\$3 or polymer or synthetic or material)                             | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2009/10/21<br>19:59 |
| L2    | 85   | piano and (chamfer\$3 or rounded or bevel \$3) with (edge or corner or side) with (lever or arm or rod or member or element or board or plate) same (action or hammer) | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2009/10/21<br>20:42 |
| L3    | 984  | (428/297.4).OCL.S.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2009/10/21<br>21:11 |
| L6    | 4    | 3 and (piano music\$3 near4 instrument keyboard string\$3 near4 instrument)  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2009/10/21<br>21:17 |
| L8    | 395  | 3 and mold\$3 same fiber   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2009/10/21<br>21:26 |
| L14   | 56   | (YOSHISUE with KENJI).in.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2009/10/21<br>21:59 |
| L15   | 4    | (HI GASA with HIROTAKA).in.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2009/10/21<br>22:04 |
| L16   | 49   | (KI HARA with TSUTOMU).in.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2009/10/21<br>22:06 |

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| S1  | 46  | (84/234).CCL.S.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/12/04<br>14:17 |
| S2  | 1   | piano and (repetition or lever or arm or rod or member or element or board or plate) near8 hammer same (mold\$3 with ABS near4 resin)  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/12/04<br>14:20 |
| S4  | 48  | piano and (repetition or lever or arm or rod or member or element or board or plate) near8 hammer same fiber\$1  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/12/04<br>14:21 |
| S5  | 2   | piano and (repetition or lever or arm or rod or member or element or board or plate) with hammer near6 (releas\$3 or lift \$3 or push\$3) same fiber\$1  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/12/04<br>14:22 |
| S6  | 242 | piano and (repetition or lever or arm or rod or member or element or board or plate) with hammer near6 (releas\$3 or lift \$3 or push\$3)  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/12/04<br>14:47 |
| S7  | 18  | piano and (repetition near4 lever) with (fiber\$1 or resin or thermoplastic or plastic or mold\$3 or polymer or synthetic or material)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/12/04<br>14:38 |
| S8  | 43  | piano and (repetition or lever or arm or rod or member or element or board or plate) with hammer near6 (releas\$3 or lift \$3 or push\$3) same (fiber\$1 or resin or thermoplastic or plastic or mold\$3 or polymer or synthetic or material)                          | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/12/04<br>14:51 |
| S9  | 43  | piano and (repetition or lever or arm or rod or member or element or board or plate or repeat\$3 near4 shank) with hammer near6 (releas\$3 or lift\$3 or push \$3) same (fiber\$1 or resin or thermoplastic or plastic or mold\$3 or polymer or synthetic or material) | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/12/04<br>14:52 |
| S10 | 42  | piano and (repetition or lever or arm or rod or member or element or repeat\$5 near4 shank) with hammer near6 (releas \$3 or lift\$3 or push\$3) same (fiber\$1 or resin or thermoplastic or plastic or mold\$3 or polymer or synthetic or material)                   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/12/04<br>14:52 |

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| S11 | 75  | piano and (repetition or repeat\$3 or releas\$3 or lift\$3 or push\$3) near8 (lever or arm or rod or member or element or shank) with hammer same (fiber\$1 or resin or thermoplastic or plastic or mold\$3 or polymer or synthetic or material) | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/12/04<br>15:02 |
| S12 | 32  | piano and hammer same (repetition or repeat\$3 or releas\$3 or lift\$3 or push\$3) near8 (lever or arm or rod or member or element or shank) with (fiber\$1 or resin or thermoplastic or plastic or mold\$3 or polymer or synthetic or material) | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/12/04<br>15:43 |
| S13 | 61  | piano and (repetition or repeat\$3) near8 (lever or arm or rod or member or element or shank) with (fiber\$1 or resin or thermoplastic or plastic or mold\$3 or polymer or synthetic or material)  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/12/04<br>15:59 |
| S14 | 6   | ("3240095"   "3583271"   "3878752"   "4770929"   "5945617").PNL  | US-PGPUB;<br>USPAT; USOCR   | OR | OFF | 2007/12/04<br>15:47 |
| S16 | 135 | piano and hammer same (lever or shank) with (fiber\$1 or resin or thermoplastic or plastic or mold\$3 or polymer or synthetic or material)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/12/04<br>16:16 |
| S17 | 44  | piano and hammer and (carbon near3 fiber)  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/12/04<br>17:33 |
| S19 | 32  | mold\$3 same long near3 fiber same ABS adj resin   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/12/04<br>16:30 |
| S20 | 8   | ("6051307").URPNL  | USPAT   | OR | OFF | 2007/12/04<br>16:49 |
| S21 | 102 | piano and carbon near3 fiber with resin  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/12/04<br>17:33 |
| S22 | 25  | piano and (hammer or action) same carbon near3 fiber with resin  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/12/04<br>17:35 |
| S23 | 46  | piano and (hammer or action) and carbon near3 fiber with resin   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2007/12/04<br>17:35 |

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| S24 | 897 | (428/297.4).CCLS.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/12/05<br>09:26 |
| S25 | 0   | S24 and "84"/\$.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/12/05<br>09:24 |
| S26 | 1   | S24 and (music\$4 near4 instrument)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/12/05<br>09:25 |
| S27 | 0   | S24 and piano   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/12/05<br>09:25 |
| S28 | 185 | S24 and carbon adj fiber  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2007/12/05<br>09:26 |
| S29 | 46  | (84/234).CCLS.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2008/07/07<br>16:51 |
| S30 | 3   | piano and repetition with lever with mold<br>\$3 with synthetic adj resin   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/07/07<br>17:16 |
| S31 | 210 | mold\$3 with synthetic adj resin with<br>carbon adj fiber                   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/07/07<br>17:23 |
| S32 | 0   | "84"/\$.ccls. and mold\$3 with synthetic adj<br>resin with carbon adj fiber | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/07/07<br>17:26 |

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| S33 | 6  | "84"/\$.ccls. and CFRP   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB       | OR | ON  | 2008/07/07<br>17:26 |
| S34 | 2  | mold\$3 with synthetic adj resin with carbon adj fiber same CFRP   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB       | OR | ON  | 2008/07/07<br>17:27 |
| S35 | 8  | piano and repetition with lever with mold\$3   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB       | OR | ON  | 2008/07/07<br>17:29 |
| S36 | 9  | "84"/\$.ccls. and (thermoplastic or plastic or polymer or synthetic) near3 resin with mold\$3 same long near5 (fiber or woven or fabric) | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB       | OR | ON  | 2008/07/07<br>18:35 |
| S37 | 0  | piano and repetition with lever with CFRP  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB       | OR | ON  | 2008/07/07<br>21:43 |
| S38 | 11 | piano and repetition with lever same mold\$3   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB       | OR | ON  | 2008/07/07<br>21:44 |
| S39 | 6  | ("3240095"   "3583271"   "3878752"   "4770929"   "5945617").PN.  | US-PGPUB;<br>USPAT; USOCR   | OR | OFF | 2008/07/07<br>21:50 |
| S40 | 1  | S39 and resin with mold\$3   | US-PGPUB;<br>USPAT; USOCR   | OR | OFF | 2008/07/07<br>21:51 |
| S41 | 1  | S39 and resin with mold\$3   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/07/07<br>21:51 |
| S42 | 15 | piano and lever with mold\$3 with resin  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB       | OR | ON  | 2008/07/07<br>21:52 |
| S43 | 64 | piano and lever with mold\$3   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB       | OR | ON  | 2008/07/07<br>21:55 |

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| S44 | 10  | piano and repetit\$3 near4 (lever or arm or rod or member or element) same mold\$3 with resin | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB       | OR | ON  | 2008/07/07<br>22:02 |
| S45 | 223 | piano and repetit\$3 near4 (lever or arm or rod or member or element)                         | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB       | OR | ON  | 2009/01/15<br>21:39 |
| S46 | 30  | (repetition or lever) with shank with roller with hammer                                      | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB       | OR | ON  | 2009/01/15<br>22:10 |
| S47 | 531 | (84/251,170,173,174,234).OCLS   | USPAT   | OR | OFF | 2009/01/15<br>22:15 |
| S48 | 0   | ("pianopwithactionandchamfer\$3withedge").PN.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2009/01/16<br>09:42 |
| S49 | 5   | piano with action and chamfer\$3 with edge  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2009/01/16<br>09:43 |
| S50 | 59  | piano and chamfer\$3 with edge  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2009/01/16<br>09:43 |
| S53 | 80  | piano same (action or hammer) and bevel\$3 with edge  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2009/01/16<br>09:50 |
| S54 | 57  | piano and bevel\$3 with edge same (action or hammer)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2009/01/16<br>09:52 |
| S55 | 56  | piano and (action or hammer or lever) same round\$3 near4 edge                                | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2009/01/16<br>10:22 |

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| S56 | 160  | piano and repetition near5 (lever or arm or rod or member or element or board or plate) same hammer  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB       | OR | ON  | 2009/01/16<br>10:39 |
| S57 | 6    | ("5511454").URPN.  | USPAT   | OR | OFF | 2009/01/16<br>11:08 |
| S58 | 4    | ("3169436"   "4854211"   "5511454").PN.  | US-PGPUB;<br>USPAT; USOCR   | OR | OFF | 2009/01/16<br>11:11 |
| S59 | 55   | piano and (chamfer\$3 or rounded or bevel \$3) with (edge or corner) with (lever or arm or rod or member or element or board or plate) same (action or hammer)         | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB       | OR | ON  | 2009/01/16<br>11:24 |
| S60 | 85   | piano and (chamfer\$3 or rounded or bevel \$3) with (edge or corner or side) with (lever or arm or rod or member or element or board or plate) same (action or hammer) | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB       | OR | ON  | 2009/01/16<br>11:24 |
| S61 | 46   | (84/234).CCLS.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB       | OR | OFF | 2009/01/16<br>12:25 |
| S62 | 1255 | (84/235-255).CCLS.   | USPAT   | OR | OFF | 2009/01/16<br>12:30 |
| S63 | 141  | piano and hammer same (lever or shank) with (fiber\$1 or resin or thermoplastic or plastic or mold\$3 or polymer or synthetic or material)                             | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB       | OR | ON  | 2009/01/16<br>13:14 |
| S64 | 2509 | (84/234-255).CCLS.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2009/06/25<br>22:45 |
| S65 | 971  | (428/297.4).CCLS.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB       | OR | OFF | 2009/06/25<br>23:02 |
| S66 | 251  | piano and (repetition or lever or arm or rod or member or element or board or plate) with hammer near6 (releas\$3 or lift \$3 or push\$3)                              | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB       | OR | ON  | 2009/06/25<br>23:41 |

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| S67 | 195 | piano and repetition with lever   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2009/06/25<br>23:50 |
| S68 | 46  | (84/234).CQLS   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2009/10/21<br>17:47 |
| S69 | 538 | (84/251,170,173,174,234).CQLS   | USPAT   | OR | OFF | 2009/10/21<br>18:12 |
| S70 | 198 | piano and repetition with lever   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2009/10/21<br>18:24 |
| S71 | 257 | piano and (repetition or lever or arm or rod or member or element or board or plate) with hammer near6 (releas\$3 or lift \$3 or push\$3) | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2009/10/21<br>18:30 |

## EAST Search History (Interference)

| Ref # | Hits | Search Query   | DBs                      | Default Operator | Plurals | Time Stamp       |
|-------|------|--|--------------------------|------------------|---------|------------------|
| L9    | 1    | ((repetition lever) same (shank roller jack guide) same hammer and (mark\$3 reference sign indicat\$3 symbol point\$3 line) with (adjust\$3 adjustment tilt\$3 alter\$3 chang\$3 align\$3 angular) with jack).clm.               | US-PGPUB; USPAT;<br>UPAD | OR               | ON      | 2009/10/21 21:46 |
| L10   | 3    | ((piano keyboard) and (repetition lever shank roller jack guide) same hammer and (mark\$3 reference sign indicat\$3 symbol point\$3 line) with (adjust\$3 adjustment tilt\$3 alter\$3 chang\$3 align\$3 angular) with jack).clm. | US-PGPUB; USPAT;<br>UPAD | OR               | ON      | 2009/10/21 21:49 |
| L11   | 11   | ((piano keyboard) and (repetition lever shank roller jack guide) same hammer and (mark\$3 reference sign indicat\$3 symbol point\$3 line) with (adjust\$3 adjustment tilt\$3 alter\$3 chang\$3 align\$3 angular)).clm.           | US-PGPUB; USPAT;<br>UPAD | OR               | ON      | 2009/10/21 21:50 |



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| L12 | 1  | ((piano keyboard) and (repetition lever shank roller jack guide) same hammer and edges with (chamfer\$3 cut cutting groove corner bevel \$3)).clm. | US-PGPUB; USPAT; UPAD | OR | ON | 2009/10/21 21:54 |
| L13 | 29 | ((piano keyboard) and (repetition lever shank roller jack guide) same hammer and (chamfer\$3 cut cutting groove corner bevel\$3 edge)).clm.        | US-PGPUB; USPAT; UPAD | OR | ON | 2009/10/21 21:55 |

10/ 21/ 2009 10:08:32 PM

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